Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

F. Bussane (Boll. Soc. Geol. ii., vii. 1888) describes a species of Ephippus to which he gives the name of *E. nicolosi*, discovered in the middle Eocene of Val Sordino, near Lonigo (Veronese). It is near *E. longipennis*, Ag., but has denticulated spinous rays in dorsal and anal.

From an examination of fossil plants found near Rome, G. Antonelli concludes that in the plistocene period the neighborhood afforded a good number of land and fresh water species, mostly of a woody nature, and identical with recent plants of the same district, so that the climate must have been much the same as now.

The Bolletine of the Geological Society of Italy, 1888, has an account of the pliocene foraminifera of Ca dë Reggio, by Mario Malogili.

G. Ristori describes some Lower Miocene crustacea of Piedmont, including a new Neptunus (*N. convexus*) and *Mursiopsis pustulosus*, nov gen. et. sp., also *Callianassa canaverii* and fragments of unnamed species. Mursiopsis belongs to the Calappidae, and has points of resemblance to Hepatus, Mursia, Lambrus, and Calappilia. The carapax is convex in front, reëntering at the sides, and straight behind, and is trilobed like Calappilia or Lambrus.

A new species of Clupea, from the Oligocene strata in the Isle of Wight, is described at length by E. T. Newton, in the *Quarterly Journal of the Geological Society*, February, 1889. As he is unable to refer the specimens to any known species, he proposes the name *Clupea vectensis*.

MINERALOGY AND PETROGRAPHY.[1]

PETROGRAPHICAL NEWS.—The palæopicrite[2] of Bottenhorn, Hessen-Nassau, consists essentially of olivine and augite, both of which have yielded interesting alteration products. The olivine, when fresh, is discovered in twins, whose twinning and composition plane is a clino-dome. Upon alteration it gives rise to the rare mineral webskyite[1] and tremolite. The former is found to be an intermediate product in the passage of olivine into serpentine. Its analysis yielded results which indicate for it a composition corresponding to H_2 (Mg. Ie) S:o_4 + 2 Aq, that is a hydrated olivine, with part of its magnesium replaced by hydrogen. Its specific gravity is 1.745. The augite of the rock is brown in color, and, like the olivine, gives rise to a peculiar alteration product. This is a green garnet with the composition:

---

[1] Edited by Dr. W. S. Bayley, Colby University, Waterville, Me.

[2] Brauns: Zeits. d. deutsch. geol. Gesell. xl., p. 455.

S:	Fe_2O_3	Al_2O_3	Ca O	Sp. Gr.
34.95	30.12	1.77	33.29	3.977

With it is associated helminth. Pseudomorphs of serpentine after magnetite are described in the same rock. A pseudomorph of calcite after chrysotile is mentioned as occurring in chrysotile veins in a diabase from Amelose, and pseudomorphs of the same mineral after the olivine of this diabase are briefly alluded to. An interesting addition to the study of jade and nephrite has been made in the shape of an article by Messrs. F. W. Clarke and G. P. Merrill[2] on the chemical and microscopical characteristics of the materials composing some of the instruments on exhibition in the U. S. National Museum. Analyses, specific gravity determinations, and the study of thin sections of nineteen specimens lead the authors to the view that the jadeite and nephrite objects, which have been gathered from widely scattered localities, cannot be depended upon in the work of tracing the migrations of ancient tribes of people, since (1), the material of which the objects consist is by no means always a pure jade or nephrite, and (2), these substances themselves, when obtained from different sources possess very different characteristics. The analyses and microscopical studies yield little new in regard to the structure of true jade. The paper is of importance as affording proof of the existence of a true jade in Alaska, and as a record of the results of the examination of many jade instruments not heretofore described.

Near the village of Trevalga[3] is a shell of eruptive rock, from seventy to a hundred feet thick, interstratified with slates. Foliation is highly developed throughout its mass in a direction parallel to the cleavage of the slates. In places it is coarsely laminated, a soft chloritic or micaceous material, alternating with layers of a hard, compact, non-foliated stony substance. The hard layers consist of calcite and feldspar in a mosaic of feldspar, chlorite, calcite, muscovite, secondary quartz, epidote, biotite, and iron compounds. The softer strata contain a great deal of chlorite and epidote is present, the other constituents remaining the same. The epidote is thought to have originated before the development of schistisity in the rock. Both layers have practically the same composition, and are therefore regarded as parts of the same magma. Both show evidences of the result of pressure in the case of their individual components. Only in certain portions, however, (in the softer layers) has this pressure produced foliation.—Ascension Island in the South Atlantic Ocean is entirely of volcanic origin. Its rocks embrace principally trachytes and andesites. The most widespread and the oldest of these, according to Renard,[1] is a pyroxene trachyte with a glassy base, which is locally so largely developed as to yield a trachyte-obsidian. In both phases little microlites of orthoclase are twinned according to the Carlsbad law, showing interpenetrative crosses in the thin section. By the assumption of hornblende the rock passes into a hornblende-trachyte, and by the local accumulation of silica a transition into rhyolite is noticed. The surface of the island is covered with scoriaceous basalts. In some localities an andesite occurs in which the augite is bronzite. Over several circumscribed areas the volcanic rocks contain, as inclusions, fragments of granite, diabase, and gabbro.—A few notes on the rocks occuring in the auriferous tracts of Mysore Province, South India, are communicated by Burney[2] as an appendix to an article by Attwood on the structure of the region. The rocks embrace eclogites, hornblende, and mica schists, all showing evidence of the effects of great pressure and also dykes of various eruptive rocks. The gold is found in quartz veins in the schists.—An interesting trachyte[3] from the Cumana railroad tunnel, near Naples, Italy, contains sanidine, two varieties of hornblende, and rod-like aggregates of hornblende and pyroxene in a ground mass of sanidine, amphibole, and magnetite. In the vesicles of the rock are large, colorless pseudo-hexagonal crystals of sodalite, rods of black amphibole, pyroxene, little crystals of sanidine, and tufts of a fibrous titanium mineral.—The alteration of an epidiorite into a chlorite schist is described by Hutchings[1] from Tintagel N. Corniwall. The epidiorte contains, in addition to the usual constituents of this rock, grains of colorless epidote, a little calcite, a very little quartz and some secondary feldspar. As schistosity is induced the amount of calcite, chlorite, and quartz increases, and epidote disappears, until finally a typical chlorite schist results.—Brief descriptions of the rocks of Somali Land, in Northeastern Africa, and of the island of Socotra are given by Miss C. A. Raisin[2] in recent numbers of the *Geological Magazine.* Those of the former locality are granites, hornblende, diabases, porphyrites, gneisses, and talc and epidote schists, overlain by limestones and other sedimentary rocks. On Socotra is a felsite with corroded quartz crystals, in which the included groundmass forms concentric rings separated by quartz material.—Ternier[3] describes very greatly corroded quartz crystals in a micro-granilite from Osaka, Japan. These crystals are surrounded by little islands of quartz with the same optical orientation as the larger grains, and the entire group is enclosed in a zone, composed of fibres of quartz and orthoclase, of which the former extinguish parallel to the large quartz crystal.—Wyronboff[4] has analyzed a specimen of the black, opaque, friable obsidian, with a fatty lustre, that occurs at Obock, and obtained the following result:

---

[1] Cf. AMERICAN NATURALIST, November 1887, p. 1021.

[2] Proc. U. S. Nat. Museum, xi., 1888, p. 115.

[3] Hutchins: Geol. Magazine, Mch. 1889, p. 101.

---

[1] Bull. Mus. Roy. d. Belg. T. v., No. 1, p. 5.

[2] Quart. Jour. Geol. Soc., Aug. 1888, p. 636.

[3] Johnston-Lavis: Geol. Magazine, Feb. 1889, p. 74.

$S:O_2$	A_2O_3	Fe_2O_3	MgO	V_2O	H_2O	Sp. Gr.
70.00	13.88	2.77	1.20	7.78	4.11	2.345

MISCELLANEOUS.—*Etched figures.*—It is well known that the character of the figures produced by etching a crystal of quartz with hydrofluoric acid varies with the nature of the crystal, and also with the symmetry of the face acted upon. With a knowledge of these facts, Messrs. Otto Meyer and Penfield have subjecte d a sphere of quartz to the influence of strong hydrofluoric acid, and have presented their results in a beautifully illustrated article. The difference in the case with which the acid etches various portions of a crystal of quartz is finely brought out by the shape which the sphere assumes after prolonged action of the etching agent. It is found that the acid acts very unequally on different parts of the sphere, corresponding to the different crystallographic faces of the crystal from which it was cut, but equally with reference to the system of hexagonal axes. In this way the tetartohedral symmetry of the mineral is strikingly revealed. The action is greatest at the two extremities of the vertical axes, while at the ends of the lateral axes it seems to be almost nil. As a final result of the action of the etching agent the sphere is reduced to a lenticular body with a triangular cross section, with the three angles of the triangle at extremities of the lateral axes.—A comparison of the shapes and positions of the etched figures produced on halite and sylvite upon their exposure to moist air has been made by Brauns.[1] Those in rock salt are usually bounded by the planes of a tetratis hexahedron, which may vary in formula between $\infty\ O\frac{7}{2}$ and $\infty\ O\frac{21}{2}$. Occasionally a depression bounded by the planes $\frac{4}{3}$ O is $\frac{4}{3}$ observed. In both cases the position of the figures on the faces etched are such that they possess the same planes of symmetry as does the face upon which they are. On sylvite, on the other hand, the depressions have no planes of symmetry in common with those of the crystal face. Halite is therefore regarded as holohedral, while sylvite is gyroidally hemihedral. The same writer mentions the existence of twinning strialtuis on cleavage pieces of rock salt, whose twinning plane is 20 O.

---

[1] Geol. Magazine, Feb. 1889, p. 53.

[2] Geol. Magazine, 1888, p. 414 and p. 504.

[3] Bull. Soc. Franç. de Min., xii., p. 10.

[4] Bull. Soc. Franç. d. Min. xii., p. 31.

[5] Trans. Connecticut Acad., viii., 1889, p. 158.

NEW BOOKS AND PAMPHLETS.—"Les Mineraux des Roches"[2] is the first French book that treats of optical properties of minerals in a way to be of use to students in the study of thin sections of rocks. As the authors state in their preface, the new book is a natural complement to Fouqué and Lévy's "Mineralogie Micrographique." In the first part the author (Lévy) discusses the application of the principles of optical mineralogy to the study of minerals in thin sections of rocks. The methods made use of in this discussion are somewhat new to petrography, as they are based more upon mathematical considerations than is usual. The fundaments of crystallography and of optical mineralogy are presupposed, as is also a knowledge of spherical geometry and trigonometry. After deducing the mathematical relations of the optical axes and bisectrices, the curves of extinction in the principal zones of monoclinic and triclinic minerals are constructed, in the manner familiar to the readers of the "Mineralogie Micrographique." The development of the laws of double refraction and pleochroism, etc., follow, and the facts thus developed are graphically illustrated by diagrams. A special feature of this portion of the book is a large, lithographic plate, by means of which the nature of the substance composing a crystalline particle of known thickness may be determined by noticing its color between crossed nicols. The general portion of the book concludes with an excellent chapter on microchemical reactions.

---

[1] Neues Jahrb. fur Min., etc., 1889, i., p. 114.

[2] "Les Mineraux des Roches," par Michel Lévy et Alf. Lacroix. Paris, 1888. Baudry et Cie. 218 fig., 1 pl., pp.

In the special portion, (by Lacroix), the chemical, morphological, and physical properties of a large number of minerals are given in concentrated forms. The appearance which these minerals present in the thin section, and their general characteristics, however, are not described, so that the book is in reality a text-book in optical mineralogy. The features which have made Professor Rosenbusch's "Mikroskopische Physiographie" so invaluable as a guide to the detective minerals *in rocks* are lacking in the volume before us, but many of those in which the latter is wanting are found in the former in good quality. "Les Mineraux des Roches" is really a complement to Rosenbusch's work, supplementing it in those very portions where the "Mikroskopische Physiographie" is weak. It is unnecessary to remark that the book of Lévy and Lacroix is one to be placed in the hands of a beginner in the study of optical mineralogy, although it will prove of inestimable value to him who is already familiar with the general principles of the science.—Mr. Eyerman[1] has collected in a pamphlet of fifty-four pages descriptions and notices of the new minerals and new mineral occurrences that have been discovered in Pennsylvania during the fourteen years since the appearance of Dr. Genth's "Preliminary Report on the Mineralogy of Pennsylvania." The analyses of Pennsylvania minerals that have been published during this period are reproduced, and a few original observations of new occurrences are given. Authorities are quoted in all cases, so that the pamphlet is of great value to anyone interested in the minerals of Pennsylvania.—The "Catalogue of a Collection of Precious and Ornamental Stones of North America, Exhibited at the Paris Exposition, 1889, by Tiffany and Co.,[2]" contains a very complete list of the valuable minerals and gem materials of North America, numbering, in all, three hundred and fifty-two specimens.

---

[1] "The Mineralogy of Pennsylvania." Part i., Eastern Pa.

[2] New York. The De Vinne Press. 32 pp.

BOTANY.[1]

AS REGARDS SOME BOTANICAL LATIN.—Scientific Latin is often said to be the laughing-stock of philologists. This may not concern botanists very much, as they do not require anything but scientific usefulness of their Latin. Nevertheless, if they are to use Latin, it is best that they use good Latin, especially as that is not a matter of very great difficulty. A principal source of inaccuracy in botanical Latin is the fact that a large number of names had their origin in the last century, or even earlier, when impure, medieval Latin was dominant. Then modern botanists, in attempting to give these names classical forms, often make them still worse. Besides, scientific men are not always as good philologists as they should be, so that many modern names are faulty.

Whether medieval Latin should be retained in Botany, on account of its antiquity and long use, or the purer forms should be substituted, is no part of the present consideration. But I may say in passing that the Latin studied and written for the most part to-day is classical Latin, and for this reason attempts to retain eighteenth century forms are liable to result in inaccuracy and absurdity.

Some of the principal characteristics of eighteenth century Latin are the use of ch for c and y for i in many words, in imitation of the Greek, and the use of the feminine nominative form for the masculine in adjectives like campester and paluster. On the continent Pirus has largely replaced Pyrus for some time, and this spelling has been followed to some extent in this country. English authors retain the eighteenth century spelling. But as is usually the case in changes of this kind, authors are inconsistent, changing some forms, and retaining others capriciously.

Of German authors, Luerssen writes Pirus, Pirola, silvester, etc. Frank (in Leunis, Syn. der drei Naturreiche) uses classical forms throughout. Drude (in Encyklopaed. der Naturwissenschaft.) writes Pirus, but sylvestris. Koch (Dendrologie) does the same. Sachs seems to prefer classical forms, but

---

[1] This department is edited by Professor Charles E. Bessey, Lincoln, Neb.